



**IN THE CLAIMS**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

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SEP - 4 2001  
TC 3100 MAIL ROOM

Kindly amend claims 1, 8 and 15 as follows:

1. A regenerative pump for adding energy to a fluid comprising:

a casing having a fluid inlet and a single fluid outlet separated by a stripper, said casing being radially split and including an impeller housing and an impeller cover, having axially spaced, radially extending first and second side walls defined therein;

an impeller having a series of impeller blades enclosed within said casing, and said impeller having an axis of rotation and axially spaced, radially extending first and second surfaces facing said first and second side walls of said casing, respectively, forming a blade system open between impeller blades at its radial end; and

a pair of flow chambers, one flow chamber formed in each of said impeller cover and said impeller housing and axially on either side of said impeller, for defining a flow path between said fluid inlet and said single fluid outlet, said flow path defining at least one of said chambers tapering axially along substantially all of its length between said fluid inlet and said single fluid outlet such that a first cross-sectional area at said fluid inlet is greater than a second cross-sectional area at said single fluid outlet.

8. A regenerative pump for adding energy to a fluid comprising:

a casing being radially split and including an impeller housing and an impeller cover having a fluid inlet and a single fluid outlet separated by a stripper, said casing having axially spaced, radially extending first and second side walls defined therein;

an impeller having a series of impeller blades enclosed within said casing, and said impeller having an axis of rotation and axially spaced, radially extending first and

second surfaces facing said first and second side walls of said casing, said impeller being open between impeller blades at its radially outer end, respectively; and

a pair of flow chambers, one flow chamber being formed in each of said impeller cover and said impeller housing and axially on either side of said impeller for defining a flow path between said fluid inlet and said single fluid outlet, said flow path defining means continuously tapering in an axial direction inward along substantially all of its length toward said impeller from said fluid inlet to said single fluid outlet as said fluid is directed back toward said impeller as said impeller rotates.

15. A regenerative pump for adding energy to a fluid comprising:

an impeller having a series of impeller blades, an axis of rotation and axially spaced, radially extending first and second surfaces and being open between impeller blades at its radially outer most end;

a radially split casing for forming an impeller housing and an impeller cover portion enclosing the impeller and having a fluid inlet with a first cross-sectional area and a single fluid outlet with a second cross-sectional area separated by a stripper, the casing having axially spaced, radially extending first and second side walls, said first and second side walls facing said first and second surfaces of said impeller, respectively;

axially and radially extending blade means formed on an outer radial periphery of said impeller for driving fluid from said inlet toward said outlet as said impeller rotates about said axis of rotation; and

a generally ring shaped side channel portion formed by a flow channel formed in each of said housing and cover portions at least one of said flow channels defining a flow path between said fluid inlet and said single fluid outlet, and said side channel

portion tapering on a constant slope axially inward along substantially all of its length toward said impeller from said fluid inlet to said single fluid outlet for reducing the cross-sectional area from said first cross-sectional area to said second cross-sectional area by from about 10% to about 50% and directing fluid back into contact with blade means as said impeller rotates.